

guideline and the shortly coming updated version is an appropriate time to review and compare it with other European guidelines in order to identify the main similarities and differences in key features. **METHODS:** We chose 14 European guidelines and compared them based on the 32 key guideline features developed by Hjelmgren et al. **RESULTS:** No relevant differences were found between the Hungarian and the European guidelines in the major part (23) of the key features. The Hungarian guideline represented nearly the same methodological aspects for example in the choice of comparator, time horizon, discount rate and financial impact analysis. We appraised relevant differences in the perspective of the PE studies, preferred analytical technic (CMA, CEA, CUA, CBA), systematic review of evidences, costs to be included, preferred outcome measure and deliver utility. The QALY is the preferred health outcome measure in cost utility studies almost in every European countries, however only the English and Scottish guidelines require only EQ-5D profile to deliver utility. In the new version of the Hungarian guideline the discount rate will be changed from 5% to 3.7%, the cost-effectiveness threshold will be explicitly determined (twofold and threefold of GDP per capita) and the direct comparisons will be preferred instead of indirect comparisons. **CONCLUSIONS:** Generally we concluded that the Hungarian guideline published in 2002 and also the new modified version basically require the same approach and expectations as the European ones. Change in three main things (discount rate, cost-effectiveness threshold, direct comparison preference) makes our guidelines more elaborated that could help the rational decision-making. The explicitly determined cost-effectiveness threshold requires specification in the method of delivering utility in the future.

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THE SWISS HEALTH TECHNOLOGY ASSESSMENT (HTA) CONSENSUS: GUIDING PRINCIPLES

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OBJECTIVES: Swiss Health Technology Assessment (HTA) initiatives have been fragmented, and official HTA processes by the Federal Office of Public Health (Bundesamt fuer Gesundheit, BAG) have been limited to new technologies and impaired by the absence of a clear-cut separation of assessment and appraisal. **METHODS:** Therefore, santésuisse (the national association of sick funds) and Interpharma (representing the interests of the Swiss research-based pharmaceutical industry) initiated "SwissHTA", a transparent and inclusive project designed to develop a national consensus how Switzerland might better use HTAs. The process was led by a project team, with membership from santésuisse (and Helsana), Interpharma (and Roche), the Swiss federal government (BAG), the Swiss Medical Association (FMH), and the Swiss Academy of Medical Sciences (SAMW). After seven retreats of the project team and three workshops in the course of 12 months, the team reached a consensus. **RESULTS:** The Swiss HTA consensus statement emphasizes the need for a broad technology focus (covering both new and existing ones by specific approaches following a common set of core principles) and recommends opportunities for stakeholder involvement throughout the HTA processes. Primary evaluation criteria should be determined by the social preferences of the Swiss population, constrained by a prior normative commitment in line with constitutional provisions and the principled, rights-based legal tradition of Switzerland. The full range of health-related benefits should be evaluated, and assessment of clinical evidence should take into account the level of evidence that can reasonably be expected in a given context, rating the degree of confidence in outcomes in relation to the relevance and the magnitude of the effects observed. Economic viability should be evaluated based on budgetary impact and cost benefit ratios, whereas the consensus rejects the idea of uniform cost per QALY benchmarks. **CONCLUSIONS:** The Swiss HTA consensus combines a pragmatic approach with well-defined evolutionary options.

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HTA PRINCIPLES INCLUSION IN NEW EUROPEAN UNION MEMBER STATES

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OBJECTIVES: HTA has the increasing role in decision-making process in new EU member states. Health care systems miscellaneousness causes differences in HTA exploitation and its characteristics. Our objective was to make an overview of HTA within these countries to show similarities and its differences. **METHODS:** Literature search was done on governmental and governmental like sites to find HTA related Acts, regulation, guidelines or other relevant documents which describes HTA country specific approach in new EU member states. First search was relevant to presence of HTA. In those of them where HTA is defined in legislation we compared several characteristics: model, role, type of HTA, role of pharmacoeconomic, threshold, discounting factor, sensitivity analysis and differentiation of approaches between therapeutic and prophylactic approaches. **RESULTS:** Out of 12 new EU member states (accessed in May 2004 or later) 10 applies HTA, 8 as light version, 2 as robust NICE like version. HTA has impactful position in 5 of them (Poland, Slovenia, Slovakia, Estonia and Latvia). Only Poland applies full HTA approach. Rest of countries use narrow pharmacoeconomic approach. Threshold is officially published in primary legislation in 2 countries (Poland, Slovakia). Discounting factor varies between 3% and 5%. There was no difference recognized in

evaluation of either therapeutic or prophylactic approaches. **CONCLUSIONS:** HTA form and role differ in new EU member states, but some similarities were identified. These similarities cannot presume any transferability of HTA decision, as it depends on the other factors like health care system, composition of costs and methods of its reimbursement by different bodies within relevant country. But certain common areas for cooperation could be established based on that.

HEALTH CARE USE & POLICY STUDIES - Patient Registries & Post-Marketing Studies

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CHALLENGES IN DEVELOPING A NEW SYSTEM FOR REGISTRATION OF PATIENT REGISTRIES

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OBJECTIVES: Patient registries are an important tool for many types of clinical research, including studies of comparative effectiveness, cost effectiveness, treatment patterns, patient outcomes, and natural history of disease. Use of registries is increasing, but there is no central database in the U.S. designed specifically to list patient registries. A searchable public database that is designed to provide information about patient registries would support research collaborations, reduce redundancies, encourage the efficient use of resources, and improve transparency in observational clinical research. The goal of this project, funded by the Agency for Healthcare Research and Quality, is to design and develop a Registry of Patient Registries (RoPR) system that meets the needs of a diverse set of stakeholders. **METHODS:** Stakeholders from a broad range of organizations and with varying levels of familiarity with patient registries were identified and invited to participate in a series of remote and in-person meetings to gather and refine the RoPR system requirements. Requirements were also revised through public comment and usability and pilot testing. Over 320 individuals participated in RoPR design activities. **RESULTS:** Stakeholders identified a range of challenges facing the RoPR system. Challenges include improving understanding of the distinction between observational studies, patient registries, and other types of clinical research; determining how to provide useful information to assess registry quality; ensuring that registry listings are sufficiently complete; and motivating registry sponsors to list their registries in a voluntary system. **CONCLUSIONS:** In response to stakeholder feedback, the RoPR was designed as an integrated system with ClinicalTrials.gov that collects information on registry purpose, classification, objectives, data collected, progress reports, and interest in collaboration and data sharing. Some challenges identified through stakeholder discussions were addressed in the system design. Other challenges must be addressed through education and collection of stakeholder feedback following the RoPR launch in September 2012.

HEALTH CARE USE & POLICY STUDIES - Population Health

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DISENTANGLING THE RELATIONSHIP BETWEEN DISABILITY, SOCIOECONOMIC STATUS AND SOCIAL CAPITAL IN CHILE: A POPULATION-BASED STUDY

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OBJECTIVES: Disability is a global public health priority strongly related to socioeconomic status (SES). Social capital (SC) is a complex construct and little is known about how it relates to SES and disability in a middle-income country. This study's purpose was to explore this relationship in Chile. **METHODS:** Cross-sectional analysis of Chilean National Health Survey-2010 (n=5037). Health outcome: Composite index of disability (continuous variable, range 0-100). Dependent variables: a) SES measures: household income per capita (tertiles), educational level (primary/secondary/higher), employment status (yes/no), and household assets index (tertiles). b) SC dimensions: interpersonal trust (3 variables), financial/emotional support (2 variables) and social participation (2 variables). After factor analysis, s 2 factors explained 60% variance (low uniqueness in all variables), with exception of social participation which was assessed separately. After orthogonal-varimax-rotation, 2 continuous aggregated variables were considered for analysis: trust and social support. Kaiser-Meyer-Olkin=0.62; Cronbach alpha=0.64 and 0.78 for trust and social support, respectively. c) Demographic factors: age, sex, marital status, rural/urban. Weighted multiple linear regression models analyzed in R. Confounding and multiple interactions terms were explored. **RESULTS:** Mean of disability was 18.8pts. A significant crude association between disability and SES was observed. All dimensions of SC were significantly associated with disability (Trust: -7.6pts, Support: -10.7pts, Participation: -2.0pts). Adjusted regressions showed SES reduced the magnitude of its association to disability by 70% when dimensions of SC were added to the model, but remained significant. Social participation lost statistical significance in presence of SES. Multiplicative interaction terms were found between SC and education, providing additional higher chance to be disabled when being poorly educated and having low trust and support. **CONCLUSIONS:** There is a complex relationship between disability, SES and SC. Interactions between SES and SC significantly modify the chance of being disabled and this needs further consideration in the context of a middle-income country.

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PHYSICAL ACTIVITY MATTERS: THE ASSOCIATIONS BETWEEN BODY MASS INDEX, PHYSICAL ACTIVITY AND HEALTH-RELATED QUALITY-OF-LIFE TRAJECTORIES OVER 10 YEARS

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OBJECTIVES: To assess the associations between body mass index (BMI), leisure time physical activity (LTPA) and health-related quality of life (HRQL) trajectories among adults. **METHODS:** Data were drawn from the Canadian National Population Health Survey, with respondents being interviewed every two years between 1996/97 and 2006/07. Using growth curve modeling, HRQL trajectories for individuals aged 18 and over were associated with measures of BMI and LTPA. Growth models were conducted separately for males and females. **RESULTS:** Findings suggested that, for males, BMI categories had little impact on baseline HRQL, and no impact on the rate of change in HRQL as men aged. Among women, higher BMI categories were associated with significantly lower baseline HRQL. However, BMI had no impact on the rate of change of HRQL. In contrast, LTPA had significant impacts on baseline HRQL, as well as the rate of change in HRQL, with individuals who were inactive or sedentary having much steeper declines in HRQL as they aged, as compared to individuals who were active in their leisure time. This was true for both men and women, regardless of BMI category. **CONCLUSIONS:** The results underscore the importance of LPTA in shaping trajectories of HRQL.

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ECONOMIC PERFORMANCE AND EPIDEMIOLOGICAL TRANSITION IN MEXICO

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OBJECTIVES: To analyze the relationship between the economic performance and the epidemiological transition in Mexico for the period from 1985 to 2008. **METHODS:** Data on Gross State Product (GSP) per capita and Gross Domestic Product (GDP) per capita were drawn from both unofficial and official sources, while mortality data by causes were extracted from vital statistics. Causes of death were grouped in communicable and non communicable diseases, excluding cancer because of the infectious etiology of some types of cancer. The epidemiological profile at state level was measured by dividing the mortality rate by communicable diseases between the mortality rate by non communicable diseases. So a value greater than one of this ratio reveals a predominance of communicable diseases and hence an epidemiological lag. Scatter plots and correlation coefficients were used to analyze the data. **RESULTS:** Throughout the study period a negative correlation was observed between the GDP per capita and the mortality rate by communicable diseases, while a positive correlation was observed between the GDP per capita and the mortality rate by non communicable diseases. On the other hand, the correlation between the epidemiological profile at state level and the GSP per capita for 1985 was negative but moderate ($r = -0.53$), but for 2008 the correlation between the same variables almost disappears ($r = -0.029$). **CONCLUSIONS:** For the whole country the relationship of both time series suggests interactions between economic performance and mortality by causes, but within the country the results reveal convergence of mortality running independently of economic performance. This evidence may support the design of public policies to reduce inequalities in health.

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SOCIOECONOMIC INEQUALITIES CONCERNING THE SELF-RATED HEALTH STATUS IN GREECE: A COMPARATIVE ANALYSIS OF POST-CRISIS EFFECTS

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OBJECTIVES: To examine the socioeconomic inequalities regarding the self-rated health status in 2006 and in 2011. Thus, a comparison between the findings will highlight the changes concerning this topic in times of economic crisis. **METHODS:** The research is based on two cross-sectional surveys, which took place in 2006 and in 2011, and the sample size was 4003 and 6569 respectively. Moreover, a random, stratified sampling was applied in both cases, which took into account the age, the gender, the urbanization rate and the geographical region. **RESULTS:** Initially, the self-rated health status was measured with a Likert scale (1: very bad, 2: bad, 3: moderate, 4: good, 5: very good). However, it was dichotomized into two major scales (0: very bad, bad and moderate, 1: good and very good), in order to facilitate the methodology. Afterwards, the Concentration Index (Ranking Variable: Income) was estimated at 0.08 in 2006. The same procedure was repeated in 2011, and the new Concentration Index was approximately 0.07. **CONCLUSIONS:** Despite the fact that the small positive values of this index (which approximate the zero) do not indicate important inequalities, there are some key conclusions concerning these findings. Specifically, it is noteworthy that the high-income people seem to have a higher health status. In addition, the decrease of the Concentration Index in 2011 highlights the impact of economic crisis on health status of middle and upper class.

HEALTH CARE USE & POLICY STUDIES - Prescribing Behavior & Treatment Guidelines

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CHARACTERISTICS OF PATIENTS NOT CONSUMING PHARMACOLOGICAL RESOURCES DUE TO A LACK OF DRUG PRESCRIPTION DURING THEIR HOSPITAL ADMISSION

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OBJECTIVES: A high proportion of patients consume pharmacological resources

during a hospital admission but little is known about the characteristics of those not receiving a drug prescription (DP). The aim was to assess independent patient's factors related to a non-DP during admission. **METHODS:** Retrospective observational study including all patients admitted in a teaching hospital during 2010. Exclusion criteria: direct admission at the Intensive Care Unit. Data collected: patients with and without a DP, demographics, programmed or urgent admission, Charlson score, length of hospital stay (LOS), type of Drug Related Group (DRG) (medical or surgical), DRG weight, readmission, mortality. Statistical analysis: Univariate analysis were performed, using Chi-Square test, Fisher exact Test and Mann-Whitney U test. A binary logistic regression was applied to identify independent factors and the model was assessed with the area under the receiver operating characteristics (ROC) curve (AUC). **RESULTS:** Patients: 16,485. Included: 15,750. Without a DP: 1,822 (11.6%). Univariate: Patients with and without a DP; Age: 55,40 (+24,26) vs 23,70 (+29,8) ($p < 0.001$); Male: 6830 (49.0%) vs 972 (53.3%) ($p < 0.001$). Urgent admission: 5,183 (37.2%) vs 1,334 (73.2%) ($p < 0.001$); Charlson (0): 7,724 (51.1%) vs 1,522 (83.5%) ($p < 0.001$). LOS: 8.18 (+10.00) vs 1.67 (+1.63) ($p < 0.001$), medical DRG: 8,743 (62.8%) vs 1,529 (83.9%) ($p < 0.001$); DRG weight: 1.79 (+1.70) vs 0.84 (+1.55) ($p < 0.001$); Readmission: 3,786 (27.2%) vs 194 (10.6%) ($p < 0.001$); mortality: 383 (2.7%) vs 47 (2.6%) ($p = 0.675$). Independent factors related to non-DP: age < 18 years (OR: 8.338, CI95%: 7.123-9.760, $p < 0.001$), Urgent admission: (OR: 4.830, CI95%: 4.172-5.592, $p < 0.001$), Charlson 0: (OR: 1.625, CI95%: 1.372-1.925, $p < 0.001$), LOS < 2 days (OR: 13.711, CI95%: 11.701-16.066, $p < 0.001$), medical DRG: 2.772, CI95%: 2.354-3.264, $p < 0.001$). AUC: 0.917 (CI95%: 0.910-0.924, $p < 0.001$). **CONCLUSIONS:** Paediatric population, an urgent admission, a low comorbidity status, a short LOS and a medical DRG were independent factors related to a non-DP during hospital admission. These patients could be managed in an ambulatory setting, what would help to reduce the economic burden in hospitals.

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VALIDITY OF SELF-REPORTED HEALTH CARE UTILIZATION: TOWARDS A RESEARCH CONSENSUS

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OBJECTIVES: Health care costs are often estimated using self-reported health care utilization data. The validity of these estimates is, however, challenged by the validity of self-reported data. The objectives were: (1) to review research findings on the validity of self-reported health care utilization focusing on factors affecting it; (2) to delineate implications for future research. **METHODS:** A systematic literature search was conducted in relevant literature databases. The identified publications were screened by predefined inclusion and exclusion criteria. Information on the accuracy of self-reported health care utilization was extracted from all included publications and analyzed. **RESULTS:** The accuracy of self-reporting varies strongly across different types of resource use. Underreporting appears to be the most common problem and increases with the frequency use and length of recall period. Comparisons across studies are difficult because of substantial heterogeneity in study populations, measurement methods and validation approaches ("gold standard" used, definition of agreement between self-reports and other data sources). Most identified validation studies are characterized by non-experimental designs. Consequently, the influence of modifiable attributes of data collection (e.g. recall period) on the accuracy of self-reported data can only be analyzed by comparison among different studies. **CONCLUSIONS:** More experimental studies are needed to better quantify the impact of modifiable attributes of data collection, such as for example different recall periods and modes of questionnaire administration, on quality of self-reported health care utilization.

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EVALUATION OF PRESCRIBING PRACTICES OF CLINICIANS IN GOVERNMENT TEACHING HOSPITAL IN PAKISTAN

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OBJECTIVES: Irrational prescribing is a usual practice in developing countries like Pakistan. To analyze the prescribing pattern including both the layout of prescription and types of drugs prescribed by the doctors in a government teaching hospital in Pakistan. **METHODS:** Prescriptions (n = 830) from a government teaching hospital were collected randomly over a period of three months and evaluated retrospectively. The data were analyzed to assess the quality of prescription including both the layout and types of drug prescribed following the guidelines of WHO. **RESULTS:** Assessment of prescriptions revealed that the quality of layout of the prescriptions was unsatisfactory. Clarity of written instructions on how to take the medicines was inadequate. 41% of the prescriptions were without the age of the patient which includes 23% of pediatric prescriptions. Thirteen percent (13%) of medicines were prescribed with their uncommon abbreviated names. The average numbers of drugs per prescription were found to be 3.57. Seventy seven percent (77%) of the drugs were prescribed with their generic names. Polypharmacy was the norm, with more than half (53.9%) of the prescriptions containing at least 3 medicines. Twenty eight percent (28%) of prescriptions included vitamin preparations and 33% of analgesics/antipyretics. Penicillins, Cephalosporins, Quinolones, Metronidazole and Tetracyclines were commonly prescribed antimicrobials, respectively. The high-priced antimicrobials were frequently prescribed without culture and sensitivity studies. **CONCLUSIONS:** This study concludes that quality of prescriptions in terms of layout and content of the drugs prescribed is inadequate requiring continued medical education. To enhance the legibility computer generated prescriptions should be promoted.